

## PROCEEDINGS OF THE SEVENTY-SEVENTH ANNUAL MEETING

JOHN A. SMALLWOOD, SECRETARY

The Seventy-seventh annual meeting of the Wilson Ornithological Society was held Thursday, 11 April, through Sunday, 14 April, 1996 at the Grand Hotel, Cape May, New Jersey, in joint session with the New Jersey Audubon Society. The local committee, chaired by Sheila Lego, was composed of Joan Walsh, Pete Dunne, Tom Parsons, Kathy Iozzo, Vince Elia, Bill Seng, Pat Sutton, Marleen Murgitroyde, Fred Mears, Bill Glaser, and Louise Zemaitis. The meeting was sponsored by the Cape May Bird Observatory, New Jersey Audubon Society.

The Council met from 13:17 to 19:02 on Thursday, 11 April in the Grand Ballroom of the Grand Hotel. At that time there were 128 registrants. On Thursday evening there was an informal reception for the conferees and guests at Blackbeard's, a libatory and culinary establishment in the Grand Hotel.

The opening session on Friday convened in the Grand Ballroom at 8:30 with welcoming remarks from Joan Walsh of the Cape May Bird Observatory, New Jersey Audubon Society, and from WOS president Keith Bildstein.

The scientific program included 53 contributed papers and 15 contributed posters, which were organized into four paper sessions, two poster sessions, a symposium on Raptor Migration and Ecology chaired by John C. Kricher, and a workshop on Teaching Ornithology, organized by Edward H. Burt. The workshop also included field demonstrations on recording bird song and on censusing birds. The evening program on Friday featured Pete Dunne, director of Cape May Bird Observatory, who delivered a well-received presentation entitled "Small-headed Flycatcher. Seen Yesterday. Didn't Leave His Name." This presentation was followed by the first business meeting of the Wilson Ornithological Society, which in turn was followed by another informal reception for members and guests at the above-mentioned Blackbeard's. Field trips on Friday, Saturday, and Sunday morning included forays to Higbee Beach and to other local birding hot spots, and the extended field trip on Sunday included a boat cruise to Back Bay.

The attendees enjoyed a ninety-minute social gathering prior to the annual banquet, which was held in the Grand Ballroom of the Grand Hotel. After a grand dinner, President Bildstein delivered a few brief remarks to the Society. The following awards also were presented:

### **EDWARDS PRIZE** (for the best major article in volume 107 of *The Wilson Bulletin*)

Mary H. Clench and John R. Mathias, "The avian cecum: a review." *Wilson Bull.*, 107 (1):93–121.

### **LOUIS AGASSIZ FUERTES AWARD**

Paul M. Nealen, "Design and function of the Carolina Wren (*Thryothorus ludovicianus*) song system."

### **MARGARET MORSE NICE AWARD**

Susan R. Blackshaw, "A study of wintering Loggerhead Shrikes (*Lanius ludovicianus*) in Texas and/or Florida."

**PAUL A. STEWART AWARDS**

Paul Doherty, "Avian responses to forest fragmentation: determining the economic cost of maintaining minimum viable populations."

Andrew Dolby, "Benefits of mixed-species flocking for Downy Woodpeckers and White-breasted Nuthatches: a removal experiment."

Kimberley J. Fernie, "Effects of electromagnetic fields generated by powerlines on avian reproduction and development."

Joseph J. Nocera, "The effects of predation on the movement of Common Terns (*Sterna hirundo*) and Arctic Terns (*Sterna paradisaea*) in Nova Scotia."

Elana V. Pravosudova, "The effect of forest fragmentation on social structure of the Tufted Titmouse, *Parus bicolor* (Paridae, Aves)."

**ROGER TORY PETERSON TRAVEL AWARD**

Sara Morris, "Fall songbird migration in Maine: factors affecting the likelihood of stop-over."

David J. Ziolkowski, Jr., "Coordination of female nest attentiveness with male song output in the House Wren."

**ALEXANDER WILSON PRIZE (for best student paper)**

Sara Morris, "Fall songbird migration in Maine: factors affecting the likelihood of stop-over."

Selection committee for the Edwards Prize—Charles Blem (chair), Tom Haggerty, Bret Whitney, and Ted Davis; for the Fuertes, Nice, and Stewart Awards—Daniel Klem, Jr., chair, Judith M. Rhymer, and Richard B. Stiehl; for the Peterson Travel Award—John Kricher, chair, Keith Bildstein, and Ted Davis.

Following the award presentations, the guest speaker, Helen Hayes of the American Museum of Natural History, gave a wonderful slide presentation titled "Desperately Seeking Roseates."

**FIRST BUSINESS MEETING**

The first business meeting was called to order by President Bildstein at 20:35 on Friday, 12 April, in the Grand Ballroom. Secretary Smallwood presented a synopsis of Thursday's Council meeting, and introduced First Vice President Edward H. Burtt, Jr., who discussed his proposal to establish a lectureship for the annual meetings in honor of Margaret Morse Nice. Vice President Burtt suggested the presentation could be an opening plenary lecture or one scheduled at another prominent place in the program. This lectureship would provide the honorary guest speaker a longer format in which to describe scientific inquiry within the overall context of a lifetime of research and personal experience. Secretary Smallwood continued, describing the Council's interest in encouraging high-quality abstracts from Latin America to compete for the Wilson Ornithological Society awards. Because many of these abstracts are written by authors not fluent in English, Jon Barlow generously pledged to oversee those translations. The Council approved a motion to allow the editor to select a recipient of a new award to recognize meritorious service to those who contribute to publishing *The Wilson Bulletin*. Through the efforts of webmeister Janet Hinshaw, the Wilson Ornithological Society now has a home page on the Internet. As of 15 March, 1996, membership in the WOS stood at 2487, including 512 life members. The Council reelected Editor Blem for another term, and expressed its great appreciation. The Council also thanked Ernest

J. Willoughby and the Undergraduate Outreach Committee for its work on teaching ornithology (see the report and committee members, below). In response to the invitation by Jerome A. Jackson, the WOS Council approved a motion to join and send delegates to the North American Banding Council, whose purpose is to facilitate an increase in the quality of data submitted to the Bird Banding Laboratory. No resolutions were received by the retiring Resolutions Committee during the previous year, and a new Resolutions Committee shall be appointed by President Bildstein. Next year's meeting will be hosted by the Division of Biology at Kansas State University from 17–20 April, 1997, in Manhattan, at the invitation of local chair John L. Zimmerman. The 1998 annual meeting will be held in St. Louis from 24–29 March, hosted by the University of Missouri College at St. Louis, with Bette Loiselle the local chair. Although not yet finalized, this is being planned as a joint meeting with the American Ornithologists' Union, the Cooper Ornithological Society, and possibly the Raptor Research Foundation and the Colonial Waterbird Society. Council gratefully accepted the invitation from local chair Herbert T. Hendrickson to host the 1999 annual meeting at the University of North Carolina at Greensboro. The secretary then asked those assembled to stand in recognition of the following members who have died since we last met: Andrew J. Berger (Kailua, HI), Mrs. W. P. Cottrile (Jackson, MI), John Farrand, Jr. (Summit, NJ), James M. Hartshorne (Ithaca, NY), Thomas A. Imhof (Birmingham, AL), Herbert W. Kale (Casselberry, FL), C. N. Mason (Washington, DC), Robert A. McCabe (Madison, WI), John T. Ricks (Huntington, NY), Carol S. Roesler (Darien, CT), Walter Spofford (Portal, AZ), Gustav A. Swanson (Ft. Collins, CO), Arthur C. Taylor (Appleton, WI), and Gerard F. Van Tets (Lyneham, Australia).

The treasurer's report was then presented by Doris Watt.

Charles Blem presented the editor's report.

William (Ted) Davis, chair, presented the report of the nominating committee, which also included Mary H. Clench and Jerome A. Jackson: President, Keith L. Bildstein; First Vice-president, Edward H. Burt, Jr.; Second Vice-president, John C. Kricher; Secretary, John A. Smallwood; Treasurer, Doris J. Watt; Members of Council for 1997-1999, Peter C. Frederick and Danny J. Ingold.

Vice-president Burt introduced members to the newly formed Mesoamerican Society for Biology and Conservation, which will publish a news bulletin and sponsor annual conferences in Mesoamerica.

The meeting was adjourned at 20:58.

## SECOND BUSINESS MEETING

The second business meeting was called to order by President Bildstein at 11:07 on Saturday, 13 April, in Room 127 of the Grand Hotel, at which time he asked Secretary Smallwood to read aloud the single resolution to be considered:

### COMMENDATION

WHEREAS the Wilson Ornithological Society held its annual meeting in scenic Cape May, New Jersey, at the invitation of the New Jersey Audubon Society,

RECOGNIZING that the Committee on the Scientific Program, under the adept direction of John C. Kricher, arranged and managed an exemplary schedule of oral and poster presentations, which included an innovative workshop on teaching ornithology, organized by Edward H. Burt, Jr., and

RECOGNIZING that the Committee on Local Arrangements, through the efforts of Sheila Lego, Joan Walsh, and other members of the New Jersey Audubon Society's Cape May Bird Observatory, provided an excellent conference venue with comfortable accommoda-

tions, interesting guest speakers of national renown, exciting bird watching opportunities, and, through mechanisms not yet revealed, outstanding local weather, and

WHEREAS the conferees found this meeting informative and enjoyable,

THEREFORE BE IT RESOLVED that the Wilson Ornithological Society commend the Committee on the Scientific Program, the Committee on Local Arrangements, and the local sponsors for a most successful and rewarding meeting in Cape May.

The motion to accept this resolution was made by Herbert T. Hendrickson, seconded by Clait Braun, and enthusiastically passed by acclamation.

The President recalled the report of the Nominating Committee to the floor, asking for any additional nominations. As there were none, Phillips B. Street moved and Clait Braun seconded that the nominations be closed, and, by acclamation, it was so. Further, Herbert T. Hendrickson moved and Richard N. Conner seconded that the candidates for all offices be elected unanimously, and again by acclamation, this too came to pass.

The President invited David Blockstein, chairman of the Ornithological Council, to address the members assembled. Dr. Blockstein reviewed the issues of current interest to the Ornithological Council, including improvements to the process of issuing federal scientific permits, the relocation of the National Biological Service (which administers the Bird Banding Laboratory) into the United States Geologic Survey, reauthorization of the Endangered Species Act, and a revision of the guidelines on the research use of wild birds.

The members in attendance were treated to a slide show by John Zimmerman that previewed the beautiful Kansan scenes we would behold next year at the 1997 WOS meeting in Manhattan. This meeting will be the initial site for the Nice Lecture, and a symposium on grassland birds is being planned. President Bildstein presented an update on the plans to meet in St. Louis, Missouri, in 1998, and in Greensboro, North Carolina, in 1999.

President Bildstein then called on those assembled for any announcements, but none were offered. Adjournment occurred at 11:32.

REPORT OF THE TREASURER  
1 JULY 1995 TO 30 JUNE 1996

GENERAL FUNDS

<i>Balance Forward</i> .....		\$ 89,713.18
<i>Receipts</i>		
Regular and Sustaining Memberships .....	\$ 33,226.00	
Student Memberships .....	4,505.00	
Family Memberships .....	<u>176.00</u>	
Total Dues .....		\$ 37,907.00
Subscriptions .....	\$ 25,919.16	
Contributions from Authors for Page Charges .....	9,549.26	
Back Issues .....	<u>664.00</u>	
Total Income from the Publications .....		\$ 36,132.42
Contributions to The Van Tyne Library .....	\$ 355.00	
Contributions to the Student Membership Endowment .....	0.00	
Contributions to the Wilson Award Endowment .....	0.00	
Contributions to the General Endowment (Life, Patrons) ...	375.00	
Contributions to the Roger Tory Peterson Travel Fund .....	0.00	
Contributions to the General Endowment .....	498.00	
Unrestricted Contributions .....	<u>458.00</u>	

Total Contributions .....		\$ 1,686.00
Royalties .....		42.00
Interest from Endowments .....		24,820.25
Interest from Checking Account .....		540.73
Dividends from Dreyfus Account (Reinvested) .....		841.80
List Rental .....		1,034.00
Miscellaneous .....		1,313.09
OSNA Adjustment .....		<u>-587.99</u>
TOTAL RECEIPTS .....		\$103,729.30

*Disbursements*

## Bulletin Publication

June 1995 .....	\$ 19,464.22	
September 1995 .....	16,904.22	
December 1995 .....	22,141.22	
March 1996 .....	19,397.82	
Editor's expenses .....	<u>5,168.29</u>	
Total Publication Costs .....		\$ 83,075.77

OSNA Expenses .....	\$ 13,948.00	
Secretary's Expenses .....	79.50	
Treasurer's Expenses .....	81.63	
Treasurer's Bond .....	0.00	
The Flock .....	259.52	
Editor's Honorarium .....	2,000.00	
Incorporation Fee .....	5.00	
Awards Committee Phone .....	66.75	
Meeting Costs/Symposium Speakers' Airfare .....	2,148.10	
Advertisement (Allen Press) .....	0.00	
CPA (Tax Filing) .....	425.00	
Van Tyne Library (Back Issues).....	40.00	
AAZN Dues .....	100.00	
Miscellaneous (Western Union, Refunded Later) .....	<u>850.00</u>	
Total Operating Expenses .....		\$ 20,003.52
Organizational Awards .....	\$ 2,206.00	
Ornithological Council Contribution .....	<u>500.00</u>	

Total Philanthropies .....		\$ 2,706.00
TOTAL DISBURSEMENTS .....		\$105,785.29
Transfer to Mellon Account .....		\$ 22,813.00
Ending Balance .....		\$ 64,844.19

*CASH ACCOUNTS*

First Source Bank Checking Account 1 April 1996.....	\$ 45,408.95	
Dreyfus Liquid Assets 1 March 1996 .....	<u>19,435.24</u>	
Total Cash on Hand .....		\$ 64,844.19
Van Tyne Library Accounts Starting Balance .....	\$ 2,857.19	
Receipts .....	\$ 1,171.10	
Expenses .....	<u>1,123.42</u>	
Ending Balance .....		\$ 2,904.87

DESIGNATED ACCOUNTS

Sutton Color Plate Fund (Endowment Principal \$55,727.99)

1995 Balance .....	\$ 500.20
1995 Earnings <sup>1</sup> .....	\$ 2,173.39
Funds Disbursed for Color Plates 1995–96 .....	<u>2,654.00</u>
1996 Balance .....	19.59

TOTAL ENDOWMENT FUNDS

1989 Market Value .....	\$386,992.00
1990 Market Value .....	\$372,063.00
1991 Market Value .....	\$423,698.00
1992 Market Value .....	\$430,258.00
1993 Market Value .....	\$487,786.00
1994 Market Value .....	\$425,155.00
1995 Market Value (June 1995) .....	\$555,600.00
1996 Market Value (March 1996) .....	\$647,600.00

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<sup>1</sup> Based on 3.9% interest on Mellon account.

EDITOR’S REPORT—1995

In 1995, 213 manuscripts (112 major papers, 101 short communications) were received by the *Wilson Bulletin* editorial office. This is 32 more than in 1994. Of these, approximately 61% were rejected. The time between receipt of manuscript from the author(s) and our return of the manuscript with referee comments nearly always has been less than three months. A few manuscripts required slightly more than four months for a decision. There is a modest backlog of manuscripts, because we have reset deadlines one month earlier. The average time between receipt of a manuscript and its appearance in *The Wilson Bulletin* in 1995 was almost always less than a year, as in past issues. Frontispiece articles sometimes require longer to appear in print, depending upon backlog of such papers. We are using e-mail in the editorial process to the degree that some costs have been reduced and the speed of response for computer users often is more prompt.

I am grateful to the editorial board—Kathy G. Beal, R. N. Conner, Tom Haggerty, and J. A. Smallwood—for their timely, skilled evaluations of many of the manuscripts submitted to the journal. Assistant Editors Leann Blem and Albert E. Conway are responsible for the consistency of style and format, and for making arcane prose more readable. I thank them for their efforts. Kathy G. Beal deserves special praise for continuing to assemble the index for *The Wilson Bulletin*. This is a tedious task and the entire society benefits from her careful work. Leann Blem has provided much of the manual labor that keeps the editorial office running and she catches many of the small errors that can plague a publication. Virginia Commonwealth University Department of Biology supports the editorial process and the running of the office in numerous ways. As always, I remain open to suggestions as how to improve the service we provide the readers and authors, and invite you to make your opinions known to me.

C. R. Blem, *Editor*

The reports of the standing committees are as follows:

## REPORT OF THE MEMBERSHIP COMMITTEE

The current members of the WOS membership committee are Jim Ingold at Louisiana State University, Mark Woodrey at the Mississippi Museum of Natural Science, Mary Clench at the University of Texas, and myself, at Montclair State University in New Jersey.

Mary Clench joined the committee in 1995, offering to contact nonrenewing members to invite them back into our flock. This proved to be a formidable task: about 350 members did not renew in 1995, and about 280 in 1994. Mary has been concentrating on the most recent drop-outs. Mark Woodrey continues to send membership invitations to authors who publish in *The Wilson Bulletin*, and Jim Ingold contacts nonmembers who make presentations at the annual meetings.

Dave Cimprich, who formerly oversaw the itinerary of the WOS membership poster, has retired. During the past year I brought the poster to the WOS meeting in Williamsburg, the Raptor Research meeting in Duluth, and the AOU meeting in Cincinnati. I'm not sure how effective of a recruitment device the poster has been at OSNA-member societal meetings, where a large percentage of the participants already are familiar with the WOS. The poster may have a greater impact at regional gatherings, and at meetings of highly motivated bird-people, such as members of Audubon and the American Birding Association. I am currently seeking a new membership committee person who will have the time and energy to implement an aggressive traveling schedule for the poster. Suggestions will be appreciated.

I received during the past year 14 letters from people interested in joining us. I sent to each a personal letter of welcome and our membership brochure. I recently revised the brochure; the editorial suggestions forwarded to me by Janet Hinshaw were particularly helpful. Both the scanned artwork and the brochure's layout are incorporated into a WordPerfect© document, so that laser printing produces a camera-ready copy, and future edits may be made easily. At this writing the new brochures are at the printers. I plan to bring a supply of them to Cape May.

John A. Smallwood, *Chair*

## REPORT OF THE UNDERGRADUATE OUTREACH COMMITTEE

The Committee on Undergraduate Outreach was established in June, 1991, under President Richard C. Banks, to help stimulate an interest in ornithology among undergraduate students, and to help maintain and focus that interest so as to stimulate students to continue studies in ornithology. The Committee has explored ways to increase interest of undergraduate students in ornithology both as a focus for future postgraduate studies, and as an avocation for those who seek careers in fields other than biological sciences.

Members of the Committee during 1995–1996 were (alphabetically): Albert R. (Jay) Buckelew, Jr., Bethany College, WV; Edward H. Burt, Jr., Ohio Wesleyan University, OH; Danny J. Ingold, Muskingum College, OH; Dale Kennedy, Albion College, MI; John C. Kricher, Wheaton College, MA; Lynn A. Mahaffy, Randolph-Macon College, VA; Barnaby Marsh IV, Cornell University, NY; Dan A. Tallman, Northern State University, SD; Ernest J. Willoughby, St. Mary's College of Maryland; W. Herbert Wilson, Colby College, ME. Of these members, Buckelew was appointed to the Committee by President Keith Bildstein in October, and Ingold resigned in February.

The Committee has completed its analysis of the returns on its questionnaire distributed to teachers of college undergraduates in November, 1993, for the purpose of helping us to decide what to do to promote education in ornithology. A copy of the complete analysis has been submitted to the secretary. The Committee will be discussing these results in its sessions at the annual meeting.

The Committee decided last year to organize an ornithology teaching workshop for this year's annual meeting. Dr. Burt and Dr. Kricher took charge of organizing and scheduling that workshop in the program.

Work on the Committee's guide to graduate degree programs in ornithology continues. The process of organizing and keyboarding the information from many institutions that responded to our request has taken longer than we supposed it would. At the same time, the Committee has received several requests for copies when they become available.

Dan Tallman continues to supervise our electronic information exchange.

The Committee is working on a project to produce a series of videotape interviews with eminent ornithologists. Such tapes could be lent through the WOS library. Lynn Mahaffy is chairing a subcommittee to draft a series of questions for such interviews.

Ernest J. Willoughby, *Chair*

#### REPORT OF THE JOSSELYN VAN TYNE MEMORIAL LIBRARY COMMITTEE

Once again at year's end, thanks in large part to the constant hard work of Janet Hinshaw and her helpers (operating from the Bird Division Library, University of Michigan Museum of Zoology, our WOS Library's "home base"), we can report satisfactory progress and many worthwhile services, both to our membership and to the science of ornithology. Our special thanks again to Pat Ahrens, secretary for the Bird Division.

Donations to the library during the year included 30 books, 57 reprints, 241 journal issues, 19 reports, and two microfilm dissertations; the reprints and journal issues, for whatever reasons, show a sharp drop-off from last year. The number of members and institutions contributing, however, remained about the same, 23, namely: S. Conant, S. Emslie, A. Feduccia, A. Gaunt, S. Goodman, G. Hall (*The Wilson Bulletin* review copies), J. Hinshaw, J. Jackson, L. Kiff (for The Peregrine Fund), N. Klein, S. Latta, F. Lohrer, P. Lowther, H. Mayfield, H. McClure, R. Payne, D. Pence, T. Root, J. Ryder, C. Shipman, J. Spindelov, Station Ornithologique Suisse, and P. Street. One can't help noting, after many years, the absence of the late Andy Berger's name as a leading donor.

Gifts to other institutions were as follows: 32 journal issues to Grand Valley State University, 52 journal issues to Hawk Mountain Sanctuary, 128 journal issues to The Peregrine Fund, four journal issues to Station Ornithologique Suisse, and 83 journal issues to the Zoological Museum, University of Moscow.

Loan transactions totaled 98, to 60 people, the almost twofold increase being partly due to our providing copies to various individuals working on *Birds of North America* accounts—certainly justifiable even if our rules had to be relaxed a bit.

The total of publications regularly received in our library, 290 titles from 199 organizations, comprise the following: 127 exchanges (192 journals, books, and reprints), 51 gifts (67 publications), and 21 subscriptions (31 titles). These figures show a continuing upward trend.

During the year, we sold 52 books for \$2535.05 (\$1022 in cash; \$1513.05 in trade for credit with Buteo Books), and 72 journal issues for \$132.00; a total of \$2677.05. These items are from the accumulating backlog of member contributions which, though surplus duplicates, have a very large cash value.

This cash accrues to replenish our New Book Fund. In this past year, a total of \$1414.55 was spent from this fund: \$701.38 for 36 books, monographs, tapes, and records; \$292.17 for back issues of journals; and \$421.00 for 12 journal subscriptions. Such purchases are adding very substantially to the overall value of our holdings.

One could hardly look at our figures and not be very much encouraged by the general picture. All we can do is once more thank the many who have been involved, while urging more members to use our library and to contribute what they can to its support.

We would encourage everyone to view our web page, which can be found at <http://www.ummz.lsa.umich.edu/birds/wos.html>. There is a link to the University of Michigan's on-line library catalogue (MIRLYN) which provides listings of the catalogued books and journals in the Van Tyne library.

William A. Lunk, *Chair*

#### PAPER SESSIONS

- Richard C. Banks, National Biological Service, National Museum of Natural History, Washington, DC, "The name of the Lawrence's Flycatcher."
- Jon C. Barlow and G. Cooke, Dept. of Ornithology, Royal Ontario Museum, Toronto, ON, Canada, "Variation in song in circum-Caribbean peppershrikes: subspecies identity of the Isla Margarita population."
- Mark Fink, Dept. of Wildlife and Fisheries Sciences, Texas A&M Univ., College Station, TX, "Effect of edge on nest predation within Golden-cheeked Warbler habitat."
- Jeanette Bider, Univ. of Arkansas, Fayetteville, AR, "Use of microhabitats by woodcreepers (Dendrocolaptidae) and flycatchers (Tyrannidae) in tropical broadleaf forest remnants."
- C. T. Baril, Dept. of Zoology, Univ of Toronto, and Dept. of Ornithology, Royal Ontario Museum, Toronto, ON, Canada, "Geographic variation in *Vireo huttoni* territorial song."
- Leonard Reitsma, Benjamin Steele, Sherman Burson, and Peter Hunt, New England Institute for Landscape Ecology, "Habitat selection and socioecology of Louisiana (*Seiurus motacilla*) and Northern Waterthrushes (*S. novaboracensis*) overwintering in Puerto Rico, West Indies."
- Daniel S. McGeen, Auburn Hills, MI, "Atoms, ions, and the warbler."
- J. M. Utter, B. Farrell, F. Arengo, R. Drummond, C. Lindner, C. Smith, and C. Safina, Purchase College, SUNY, Purchase, NY, "Overwinter decline in multiflora rose fruit on mockingbird territories."
- Eric C. Atkinson, Hawk Mountain Sanctuary Association, Kempton, PA, Pam Dugger and Christina Swindall, Boise State Univ., Boise, ID, "Year-round habitat association of Black-billed Magpies, Horned Larks, and Western Meadowlarks on the Snake River Birds of Prey National Conservation Area."
- Barbara J. Bowen, Dept. of Biology, Central Connecticut State Univ., New Britain, CT, "Comparisons of predation rates on artificial and natural avian nests in open, edge, and forested habitats."
- Catherine M. Devlin, Rutgers Univ., New Brunswick, NJ, "The Eastern Wild Turkey (*Meleagris gallopavo silvestris*) in the southern pinelands of New Jersey."
- Winli Lin, Univ. of San Diego, San Diego, CA, "Parental behavior and possible brood division in Whimbrel (*Numenius phaeopus*)."
- Sylvia L. Halkin, Dept. of Biological Sciences, Central Connecticut State Univ., New Britain, CT, "Recording and analysis of bird vocalizations."
- W. Herbert Wilson, Colby College, Waterville, ME, "Teaching the fundamentals of bird vocalizations: a laboratory on computer-aided analysis."
- Alex Dowling, Dept. of Wildlife and Fisheries Sciences, Texas A&M Univ., College Station, TX, "Impacts of habitat fragmentation on Prothonotary Warblers in east Texas."
- Mark R. Ryan, School of Natural Resources, Univ. of Missouri, Columbia, MO, "Teaching optimal foraging behavior: an experiment on group vs. solitary foraging."

- Ernest J. Willoughby, St. Mary's College of Maryland, St. Mary's City, MD, "Field study of migratory behavior."
- Edward H. Burt, Jr., Dept. of Zoology, Ohio Wesleyan Univ., Delaware, OH, "Teaching identification of birds through censusing habitats that differ in the extent of human impact."
- Doris J. Watt, Biology Dept., Saint Mary's College, Notre Dame, IN, "A laboratory exercise in armchair biology."
- Bruce G. Peterjohn, John R. Sauer, and William A. Link, National Biological Service, Patuxent Wildlife Research Center, Laurel, MD, "Mapping change in bird distributions from breeding bird survey data."
- John R. Sauer, William A. Link, and Bruce G. Peterjohn, National Biological Service, Patuxent Wildlife Research Center, Laurel, MD, "Estimating population change from the North American Breeding Bird Survey."
- Andrew B. T. Smith, Univ. of Ontario, ON, Canada, "Changes in the abundance of forest birds in Algonquin Park: 1952-1995."
- Kurtis L. Dean and David L. Swanson, Univ. of South Dakota, Vermillion, SD, "Seasonal variation in density and diversity of neotropical migrants at stopover sites in the northern great plains."
- Deanna K. Dawson, Patuxent Wildlife Research Center, Laurel, MD, and Lonnie J. Darr, Montgomery County Dept. of Environmental Protection, Rockville, MD, "Land-use planning for area-sensitive forest birds."
- Eric T. Liknes, Kurtis L. Dean, and David L. Swanson, Dept. of Biology, Univ. of South Dakota, Vermillion, SD, "Differential timing of migration of sex/age classes in Ruby-crowned Kinglets."
- Joseph R. Jehl, Jr., Hubbs-Sea World Research Institute, San Diego, CA, "Leaving town: how Eared Grebes prepare to migrate."
- Ronnie E. Stout, North Dakota State Univ., Fargo, ND, "Fall Red-necked Grebe migration behavior and molt in the Great Lakes region."
- Chao-Chieh Chen and R. B. Hamilton, Louisiana State Univ., Baton Rouge, LA, "Analysis of searching movements of insectivorous migratory songbirds on the Chenier Plain of the Gulf Coast."
- Sara R. Morris, Cornell Univ., Ithaca, NY, "Fall songbird migration in Maine: factors affecting the likelihood of stopover."
- Jeffrey P. Dugay and Petra S. Wood, West Virginia Cooperative Fish and Wildlife Research Unit, NBS, West Virginia Univ., Morgantown, WV, "The management effects of clearcuts and two-age timber harvests on nongame birds in West Virginia."
- John A. Smallwood, Dept. of Biology, Montclair State Univ., Upper Montclair, NJ, and Peter D. Smallwood, Dept. of Biology, Univ. of Pennsylvania, Philadelphia, PA, "Decoy holes and monitoring rates: applied conservation biology for secondary cavity nesting species."
- Bradley D. Ross and Richard H. Yahner, Dept. of Ecology, Pennsylvania State Univ., University Park, PA, "Integrating habitat and bird variables using geographic information systems and extensive wildlife data sets."
- Bruce W. Baker, Brian S. Cade, Warren L. Mangus, National Biological Service, Fort Collins, CO, Janet L. McMillen, Dept. of Zoology, Ohio State Univ., Columbus, OH, and F. Joshua Dcin, National Biological Service, Madison, WI, "Multi-scale evaluation of a suitability model for Sandhill Crane nesting habitat."
- Robert W. Russell, National Oceanographic and Atmospheric Association, Seattle, WA, "Boundary-layer convergence lines: aerial corridors for soaring birds."

- B. G. Murray, Jr., Dept. of Biological Sciences, Rutgers Univ., Piscataway, NJ, "On the meaning of 'reproductive success' and other terms."
- Peter W. C. Paton, Univ. of Rhode Island, Kingston, RI, and Ron Flores, U.S. Fish and Wildlife Service, Ninigret NWR, Charlestown, RI, "Effects of the North Cape barge oil spill on the distribution of birds in coastal Rhode Island."
- Richard N. Conner, D. Craig Rudolph, Southern Research Station, U.S. Forest Service, Nacogdoches, TX, and Robert N. Coulson, Dept. of Entomology, Texas A&M Univ., College Station, TX, "Relationships between southern pine beetle population level and bark-beetle caused mortality of Red-cockaded Woodpecker cavity trees."
- D. Craig Rudolph and Richard N. Conner, Southern Research Station, U.S. Forest Service, Nacogdoches, TX, "Red-cockaded Woodpeckers, ecosystem management, and silviculture."
- Douglas W. White, Albion College, Albion, MI, "Effect of egg burial on nest vandalism by House Wrens."
- L. Scott Johnson, David Ziolkowski, Dept. of Biology, Towson State Univ., Towson, MD, Krishna Hannam, and William A. Searcy, Dept. of Biology, Univ. of Miami, Miami, FL, "Coordination of female nest attentiveness with male song output in the House Wren."
- E. Dale Kennedy and Douglas W. White, Albion College, Albion, MI, "Competition between Bewicks Wrens and House Wrens."
- Gregory S. Keller, School of Forest Resources, Pennsylvania State Univ., University Park, PA, "Seasonal distribution and community composition of avifauna in isolated deciduous forest patches."
- Ernest J. Willoughby and Christopher J. Lindsay, St. Mary's College of Maryland, St. Mary's City, MD, "Significance of the odd prenuptial molt of American Goldfinch."
- Todd J. Underwood and Roland R. Roth, Dept. of Entomology and Applied Ecology, Univ. of Delaware, Newark, DE, "Estimating Wood Thrush population demographics by constant effort mistnetting."
- Jake Stein, Univ. of Tennessee at Martin, Martin, TN, "Effects of sex, time of day, and age on Carolina Chickadee weights."
- David M. Whalen, Center for Conservation Biology, College of William & Mary, Williamsburg, VA, "Fall migration of Northern Saw-whet Owls at the southern tip of the Delmarva Peninsula."
- Keith L. Bildstein and Laurie J. Goodrich, Hawk Mountain Sanctuary, Kempton, PA, "Linking raptor migration watch-site counts to mainstream ecology and conservation: 60 years of science at Hawk Mountain Sanctuary."
- Paul Kerlinger, New York, NY, "Economics of hawk watching."
- David F. Brinker, Maryland Dept. of Natural Resources, Annapolis, MD, "Migratory movements of Northern Saw-whet Owls: what do we really know?"
- Jacques Ibarzabal, École de la mer des Jeunes Explos., Beauport, PQ, Canada, and Jean-Pierre L. Savard, Canadian Wildlife Service, Sainte-Foy, PQ, Canada, "Migration monitoring in Tadoussac, Quebec."
- Robert W. Russell, National Oceanic and Atmospheric Administration, Seattle, WA, "Water-crossing tactics of migrating hawks at Cape May Point."
- Richard P. Gerhardt, Miguel Angel Vasquez, and Paula M. Harris, The Peregrine Fund, Inc., Boise, ID, "Observations and food habits of nesting Great Black Hawks in El Peten, Guatemala."

## POSTERS

- J. A. Dick, R. D. James, and J. C. Barlow, Dept. of Ornithology, Royal Ontario Museum, Toronto, ON, Canada, "Current status of transient Rufous Hummingbirds in Ontario."

- Alix Dowling, Dept. of Wildlife and Fisheries Sciences, Texas A&M Univ., College Station, TX, "Impacts of habitat fragmentation on Prothonotary Warblers in East Texas."
- Jessica R. Eberhard, Princeton Univ., Princeton, NJ, "The evolution of nest-building in parrots."
- H. T. Hendrickson, Univ. of North Carolina at Greensboro, Greensboro, NC, "History of winter populations of Purple Finch in eastern North America."
- Peter Hunt, Mascoma Lake Bird Observatory, Enfield, NH, "Winter distribution of the sex and age classes of the Yellow-rumped Warbler."
- Michael J. Justice, Dept. of Psychology, Dominican College, Orangeburg, NY, and Teresa C. Justice, Dept. of Psychology, Iona College, New Rochelle, NY, "Random mating by size in Northern Mockingbirds."
- T. Greg King, Mark A. Howell, Brian R. Chapman, Karl V. Miller, and Sandra S. Chapman, School of Forest Resources, Univ. of Georgia, Athens, GA, "The effects of growing-season vs. dormant-season prescribed fire on neotropical migrant birds."
- Brook Lauro, St. John's Univ., Jamaica, NY, "The foraging ecology of Sooty Oystercatchers (*Haematopus fuliginosus*) nesting at rocky shores in Australia."
- Lynn A. Mahaffy and Kendall Malone, Randolph-Macon College, Ashland, VA, "Some effects of mosquito control on submerged aquatic vegetation utilized by waterfowl."
- R. McLain, Dept. of Entomology and Applied Ecology, M. Parcels, Dept. of Animal and Food Sciences, and R. Roth, Dept. of Entomology and Applied Ecology, Univ. of Delaware, Newark, DE, "Determining sex of Wood Thrush by flow cytometry."
- John O'Reilly and Roland R. Roth, Univ. of Delaware, Newark, DE, "Within-season changes in nest location and mate by female Wood Thrushes."
- Jeanette Rilling, Frederick Terranova, and Terry L. Master, East Stroudsburg Univ., East Stroudsburg, PA, "Habitat selection and population status of the Louisiana Waterthrush (*Seiurus motacilla*) in the Delaware Water Gap National Recreation Area."
- Michel Robert and Pierre Laport, Canadian Wildlife Service, Sainte-Foy, PQ, Canada, "Yellow Rail distribution, habitat and conservation along the St. Lawrence River, southern Quebec."
- James A. Sedgwick, National Biological Service, Fort Collins, CO, "Some aspects of Willow Flycatcher population dynamics."
- Jeffrey A. Spindel, Patuxent Environmental Science Center, NBS, Laurel, MD, James M. Zingo, Massachusetts Cooperative Fish and Wildlife Research Unit, NBS, Univ. of Massachusetts, Amherst, MA, David A. Shealer, Dept. of Biology, Rutgers Univ., Piscataway, NJ, and Grey W. Pendleton, Patuxent Environmental Science Center, NBS, Laurel, MD, "Growth and fledging of Roseate Terns in exceptionally 'good' and 'poor' years of overall productivity."